Amendments to the claims:

Please amend claims 1, 9, and 10 as specified in the following listing of claims.

The listing of claims given below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A wireless communication unit comprising a linearised transmitter having:

a forward path for routing a signal to be transmitted;

a power amplifier for transmitting a linearised radio signal;

a feedback loop, operably coupled to the power amplifier and the forward path, comprising a loop adjustment function, wherein the forward path and feedback loop comprise quadrature circuits; and

a processor for applying a first training signal to a first quadrature circuit loop for routing through the forward path, power amplifier and feedback path to determine at least one first parameter setting of the loop adjustment function, wherein

said processor applies a second training signal to a second quadrature circuit loop to determine at least one second parameter setting of the loop adjustment function; and

said first and second training signals are applied by the processor while the first and second quadrature circuit loops are open.

2. (Previously presented) The wireless communication unit according to Claim 1, wherein said first training signal and said second training signal have substantially the same signal parameters.

3. (Previously presented) The wireless communication unit according to Claim 2, wherein the loop adjustment function is a phase shifter for adjusting a phase shift in the first and second quadrature circuit loops.

4. (Previously presented) The wireless communication unit according to Claim 3, further comprising a phase calculation function operably coupled to said phase shifter to calculate a phase shift in each of the first and second quadrature circuit loops, thereby ascertaining an imbalance therebetween.

5. (Previously presented) The wireless communication unit according to Claim 1, wherein said processor applies said first training signal to the linearised transmitter prior to applying said second training signal.

6. (Previously presented) The wireless communication unit according to Claim 1 wherein the linearised transmitter is a Cartesian feedback linearised transmitter such that said adjustment is applied to a real-time feedback loop.

7. (Previously presented) The wireless communication unit according to Claim 1, wherein said wireless communication unit is capable of operation on a TETRA communication system.

8. (Previously presented) The wireless communication unit according to Claim 1, wherein said wireless communication unit is a subscriber unit or a base transceiver station.

9. (Currently amended) A linearised transmitter integrated circuit comprising:

a linearised transmitter for transmitting a linearised radio signal, and

a forward path comprising quadrature circuits for routing a signal to be transmitted and for operable coupling to a power amplifier for transmitting a linearised radio signal;

a feedback loop, operably coupled to the forward path and for operable coupling to an output of a power amplifier, wherein the feedback loop comprises a loop adjustment function, and quadrature circuits; and

a processor, operably coupled to the feedback loop for applying a first training signal to a first quadrature circuit loop in the linear transmitter integrated circuit to be routed through the forward path, power amplifier and feedback path to determine at least one first parameter setting of the loop adjustment function,

wherein said processor applies a second training signal to a second quadrature circuit loop in the linear transmitter integrated circuit to determine at least one second parameter setting of the loop adjustment function; and

wherein said first and second training signals are applied by the processor while the first and second quadrature circuit loops are open.

10. (Currently amended) A method of training a linearised transmitter having a forward path, a power amplifier and a feedback loop comprising a loop adjustment function, wherein the forward path and feedback loop comprise quadrature circuits~~;~~, the method comprising the steps of:

applying a first training signal to be routed through a first quadrature circuit loop of the forward path, power amplifier and feedback path, wherein said first training signal is applied while the first quadrature circuit loop is open; and

determining at least one first parameter setting for the loop adjustment function based on the first training signal,

applying a second training signal to a second quadrature circuit loop of the forward path, power amplifier and feedback path, wherein said second training signal is applied while the second quadrature circuit loop is open; and

determining at least one second parameter setting for the loop adjustment function based on the second training signal.

11. (Previously presented) The method of training a linearised transmitter according to Claim 10, the method further comprising adjusting said loop adjustment function based on a determination made on the first training signal and a determination made on the second training signal.

12. (Previously presented) The method of training a linearised transmitter according to claim 10 wherein the steps are performed in a storage medium storing processor.